

Amendment
U.S. Appl No. 10/522,618
Attorney Docket No. 052009

REMARKS

By the present amendment, claim 1 has been amended to add a paragraph indent and a typographical correction, and claim 12 has been amended to replace “the guide roll is at least one selected from...” by “at least one of the first and second guide rolls is selected from....”

It is submitted that the amendments do not raise any new issues. Accordingly, entry and consideration of the amendments is respectfully requested.

Claims 1 and 8-18 are pending in the present application.

I. Indefiniteness rejection

In the Office Action, claim 12 is rejected under 35 U.S.C. 112, second paragraph, as indefinite. It is alleged that the term “the guide roll” lacks antecedent basis in claim 1.

Claim 12 has been amended to replace “wherein the guide roll is at least one selected from...” by “wherein at least one of the first and second guide rolls is selected from....” Accordingly, it is submitted that the rejection should be withdrawn.

II. Art rejections

In the Office Action, the following rejections are made:

- Claims 1, 8, 10, and 14-17 are rejected under 35 U.S.C. 103(a) as obvious over Ikemoto et al., JP10-153709A (“Ikemoto”),
- Claim 9 is rejected under 35 U.S.C. 103(a) as obvious over Ikemoto in view of Sanefuji et al., US2002/0001700A1 (“Sanefuji”),
- Claim 11 is rejected under 35 U.S.C. 103(a) as obvious over Ikemoto in view of Harita et al., US2001/0024322A1 (“Harita”),

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- Claim 12 is rejected under 35 U.S.C. 103(a) as obvious over Ikemoto in view of Burger, US3,492,185 (“Burger”),
- Claim 13 is rejected under 35 U.S.C. 103(a) as obvious over Ikemoto in view of Kondo, JP2000-147252 (“Kondo”), and
- Claim 18 is rejected under 35 U.S.C. 103(a) as obvious over Ikemoto et al. in view of US5,071,906 to Tanaka et al. (“Tanaka”).

Reconsideration and withdrawal of the rejections is respectfully requested. It is submitted that Ikemoto is completely silent regarding, not only reducing transport time of films in a swelling bath, but also about selecting transport time of a film in a bath during swelling and before swelling reaches saturation state, and in particular regarding the timing of contact with guide rolls in a bath. Therefore, based on Ikemoto, transport of the film in a bath “within a time up to when swelling reaches a saturation state” and transport of the film “after the swelling reaches the saturation state” could not have been “result-oriented variables” for the person of ordinary skill in the art. In other words, a person of ordinary skill in the art would not have been aware of any optimization potential regarding any of bringing the film “into contact with the first guide roll up to when swelling reaches a saturation state” and bringing the film “into contact with a second guide roll after the swelling reaches the saturation state,” as recited in present claim 1.

In particular, the only actual teaching regarding “film submergence” provided by Ikemoto is that impregnation time should be in the range of “4-6 minutes.” Ikemoto does not even identify the impregnation time up to when swelling reaches saturation state nor the timing

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of contact with guide rolls in the bath as critical features of an impregnation step, let alone provide any theoretical or practical guidance about selecting appropriate ranges or values for impregnation time up to saturation state and after saturation state, and regarding the timing of contact with the guide rolls.

In contrast, in the presently claimed invention, the present inventors have identified the timing of contact with a first and second guide rolls in relation with the timing of saturation state as critical variables in an impregnation step, and they have provided for a sequence and timing for performing the impregnation step as recited in present claim 1. These features and their advantages are not taught or suggested in Ikemoto.

Specifically, in the Office Action, it is alleged that the Abstract, paragraphs 11 and 30-33, and Table 1 of Ikemoto teach that impregnation times are result-effective variables. However, the abstract of Ikemoto mentions “about 5 minutes,” paragraph 11 mentions “4-6 minutes,” and paragraphs 30-33 and Table 1 only discuss examples in the 4-6 minute impregnation range. In addition, Ikemoto is completely silent as to the specific impregnation time up to the first roll and the impregnation time between the first and second rolls, and Ikemoto is also completely silent regarding an analysis of when swelling reaches a saturation state. Therefore, Ikemoto cannot provide any guidance to the person of ordinary skill in the art regarding an optimization of the timing of contact with first and second guide rolls, and especially not in relation to saturation state.

Also, in the Office Action, it is alleged that a reference to Comparative Example 1 of the present application is not effective to distinguish Ikemoto because the conditions of this

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Comparative Example 1 are different from Ikemoto. However, it is submitted that the reference to Comparative Example 1 was provided only to explain that reducing impregnation time is conventionally problematic, which explains why Ikemoto maintains a longer impregnation time of 4-6 minutes. This argument remains valid whether or not Comparative Example 1 has similar conditions as Ikemoto. In other words, Comparative Example 1 illustrates that a reduced impregnation time is generally problematic for the optical properties of the resulting film, which illustrates why Ikemoto could not have had a reasonable expectation of success in reducing impregnation time (which is also why Ikemoto actually uses a long impregnation time of 4-6 minutes).

More specifically, a comparison of Example 8 and Comparative Example 1 of the present application illustrates the criticality of the timing of contact with the first guide roll in relation to saturation state. Namely, Example 8 and Comparative Example 1 were made with very similar total impregnation time, but in Example 8, impregnation time up to contact with the first guide roll was 6 seconds, whereas it was 14 seconds in Comparative Example 1:

Example	Impregnation time up to first guide roll (sec)	Impregnation time between first and second guide rolls (sec)	Total impregnation time (sec)
8	6	60	95
Comp Ex. 1	14	75	94

Table 1 on page 43 of the present application shows that the film obtained in Example 8 had considerably improved optical properties, as compared to the film obtained in Comparative Example 1. This unexpected improvement illustrates the benefit of appropriately selecting a

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timing of contact to the guide rolls in relation to impregnation time provides unexpected results, as provided in the presently claimed invention.

Also, in the Office Action, it is alleged that the argument that Ikemoto focuses on boric acid content rather than the saturation state in relation to contact with first and second guide rolls is ineffective, because no boric acid content is recited in the claims. However, the argument in the last response regarding boric acid content was not made with respect to the present invention, but with respect to Ikemoto, in order to explain why Ikemoto never looked into the timing of contacting the film with first and second guide rolls in relation to the timing of the saturation state. Thus, this argument (i.e., that using boric acid in Ikemoto is effective because of a long impregnation state, so that Ikemoto teaches against reducing impregnation time) remains valid independently from whether the swelling bath of the present invention contains boric acid or not.

Namely, in contrast to Ikemoto, relevant features of the present invention are saturation state and contact with first and second guide rolls, as recited in present claim 1, and the experimental results provided in the present application illustrate that the features of the presently claimed invention provides unexpectedly improved properties. These features of the presently claimed invention and their advantages are not taught or suggested in Ikemoto, and the other cited references fail to remedy these deficiencies of Ikemoto. Therefore, the present claims are not obvious over Ikemoto taken alone or in any combination with the other cited references.

In view of the above, it is submitted that the rejections should be withdrawn.

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Conclusion

In conclusion, the invention as presently claimed is patentable. It is believed that the claims are in allowable condition and a notice to that effect is earnestly requested.

If there is, in the Examiner's opinion, any outstanding issue and such issue may be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

If this paper is not timely filed, Applicant(s) respectfully petition(s) for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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